



20-21 Wagaraw Road – Bldg. 35E, Fair Lawn, NJ 07410
PH (973) 636-9145 /FAX (973) 636-9144
Email: envirovision@optonline.net

Project No.: 17-434

December 11, 2017

Mr. Steve Kepnes, Business Administrator
Vernon Township School District
P.O. Box 99
Vernon, NJ 07462

Re: Limited Basic Post Fire Indoor Air Quality re-evaluation on 12-10-17 @ Vernon High School, 1832 County Road 565, Vernon, NJ 07462 (Regarding Fire in Room #201)

Dear Mr. Kepnes;

As per your request and direction, On Sunday December 10, 2017 EnviroVision's environmental Technicians/specialists performed some basic indoor air quality (IAQ) evaluation/measurements that allowed for quick on-site result availability.

The findings presented herein are subject to the limitations indicated at the end of this report.

1. 4-Gas QRAE meter was used for continuous exposure monitoring of oxygen, hydrogen sulfide, carbon monoxide and combustible gases. It gives real time measurements and activates alarm signals whenever the exposure exceeds preset limits or oxygen is depleted. An on-site reading did not indicate the presence of hydrogen sulfide, carbon monoxide, nor combustible gases and confirmed a normal oxygen concentration (20.9%) throughout several areas of the Vernon High School in proximity to and pertaining to the area of concern (Room 201) (See attached data sheet). Additionally, our technicians walked throughout majority of accessible areas of the school and observed that the on-site readings did not indicate the presence of hydrogen sulfide, carbon monoxide, nor combustible gases and confirmed a normal oxygen concentration (20.9%)
2. Direct reading of air quality parameter, VOC (Volatile Organic Compounds) was performed via MSA Passport PID (Photoionization Detector) Organic Vapor Monitor and at no time did the device alarm nor did it indicate levels requiring action or concern (See attached data sheet). Additionally, our technicians walked throughout majority of accessible areas of the school and observed that at no time did the device alarm nor did it indicate levels requiring action or concern for VOCs.

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3. Sampling for fibrous particulates present in the air was performed via Phase Contrast Microscopy (PCM) utilizing NIOSH 7400 methodology for immediate analysis. This method measures the fibrous concentrations of particulates in the air thought to be of respirable size and morphology. This method is often used to screen for asbestos fibers in the air but can be used for other fibrous particulates as well. All of the PCM results indicated fibrous particulates below OSHA, NIOSH and ACGIH requirements/recommendations. Similarly to our 12-4-17 evaluation the sample collected in the actual room in which the fire started (Room 201) indicated fiber levels elevated above the other areas sampled. (See attached data sheet).

OBSERVANCES ON 12-10-2017

- On the day of the re-evaluation strong odor indicative of fire was perceived by our technicians in Room 201 and was also perceived in the immediately adjacent rooms/corridors to a significantly much lesser extent. A very slight odor of fire was noticed when first opening and entering the Auditorium, but this was not duplicated upon reentering several times during our visit. Odor (perceived) indicative of the fire cleaning agent and other cleaning products was apparent upon entering the Main Lobby/Front Entrance to the school. Odor indicative of fire was not perceived throughout the other areas of the school during our site evaluation.
- Visually only sealed off room 201 indicated significant fire damage, while the sealed off adjacent corridor (s) and rooms indicated fire damage to a significantly less extent. Other interior areas of the school did not indicate any easily observable damage from the fire.

IN CONCLUSION

Basic on site IAQ screening, analysis and readings did not trigger actionable levels or exceedances for the parameters that were evaluated on Sunday, December 10, 2017. The actual room in which the fire happened did indicate higher fibrous particulates, but was still within standards for that parameter.

Screening and observances performed during our site visit to the Vernon High School prompted following recommendations by EnviroVision's representative:

- Continue to cordon/seal off all openings/entrances to Room 201 and adjacent applicable corridors/rooms.
- EnviroVision recommends having remediation contractor install and operate air filtration device (s) (AFDs) exhausting to exterior of building for the area of concern (Room 201). This will continue filtration of air and should be engineered to create gentle negative pressure within work area. Negative pressure in area of concern can help to minimize odor and particulate transference to other areas of school.



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- Area of concern should be kept cordoned off until further cleanup and renovations are completed.
- After complete remediation in Room 201, and to document the conditions of Room 201, EnviroVision recommends a follow up IAQ screen, with a fire related test “combustible-by-products” (CBP). CBP testing and analysis is designed for fire residues of interest, specifically char, soot and ash. CBP is often used for cleaning assessment and or insurance.

LIMITATIONS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services. Conclusions contained in this report are based on limited environmental testing, and were arrived at in accordance with generally accepted IAQ standards parameters that with immediate result availability. The testing conducted at the site was limited in scope, and cannot be considered representative of areas not tested, nor of time periods other than during the testing period.

If you have any questions, or if we could be of any further assistance, please feel free to contact our office. EnviroVision looks forward to providing you with the service and attention to detail that you have come to expect from us.

Sincerely,
EnviroVision Consultants, Inc.

A handwritten signature in cursive script that reads "Frederick Larson". The signature is written in dark ink and is positioned above a horizontal line.

December 11, 2017

Frederick Larson, Vice President

Attached: PCM Air sample data sheets analytical results
QRAE 4-gas, and PID measurements with certificate



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Limited IAQ Testing

Client: Vernon Twp BOE
625 County Rd 517,
Vernon, NJ 07462

Proj. No. 17-434

Site: Vernon High School
1832 County Rd 565,
Vernon, NJ 07462

Technician: Steven Audenried, Frederick Larson **Date:** December 10 , 2017

Sampling Devices Used: Multigas QRae

4 Gas Meter

TIME	O2 %	LEL	CO	H2S	Location
11:00	20.9	0	0	0	Outside fresh air – front of the Bldg
11:15	20.9	0	0	0	1 st Fl Hallway by main office
11:20	20.9	0	0	0	1 st Fl main office
11:23	20.9	0	0	0	1 st Fl Auditorium
11:25	20.9	0	0	0	1 st Fl Cafeteria
11:26	20.9	0	0	0	1 st Fl Hallway, front of Auditorium
11:28	20.9	0	0	0	1 st Fl Front entrance / Lobby
11:30	20.9	0	0	0	2 nd Fl Hallway outside contained area (by Library / Media center)
11:32	20.9	0	0	0	2 nd Fl Library / Media center
11:34	20.9	0	0	0	2 nd Fl Room #202
11:36	20.9	0	0	0	2 nd Fl Room #203 with Photo lab
11:38	20.9	0	0	0	2 nd Fl Hallway by Rooms ## 202 & 203
11:42	20.9	0	0	0	2 nd Fl Hallway by Room #205
11:56	20.9	0	0	0	2 nd Fl Room #201
12:00	20.9	0	0	0	2 nd Fl Hallway by Room #201
12:40	20.9	0	0	0	Outside fresh air - front of the Bldg

Note: device was running the entire time, above select times were recorded for documentation.

O2 – Oxygen, LEL- Lower Explosive Limit, CO – Carbon Monoxide,
H2S-Hydrogen Sulfide

Frederick Larson 12/11/17



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PH (973) 636-9145 / FAX (973) 636-9144
Email: envirovision@optonline.net

CLIENT: Vernon Twp BOE
625 County Rd 517,
Vernon, NJ 07462

PROJECT: Vernon High School
1832 County Rd 565,
Vernon, NJ 07462

PROJECT No.: 17-434

DATE OF MEASUREMENTS: 12-10-2017

METHOD OF MEASUREMENT: QRAE PID Organic Vapor Monitor (Photoionization Detector)
CALIBRATED: by Environmental Equipment Repair

PID Measurement

Location & Time	Reading	Note/Info
Outside by main entrance – 11:00	0.0	Outside fresh air calibration
1 st Fl Hallway by main office – 11:15	0.0	
1 st Fl main office – 11:20	0.0	
1 st Fl Auditorium – 11:23	0.0	
1 st Fl Cafeteria – 11:25	0.0	
1 st Fl Hallway, front of Auditorium – 11:26	0.0	
1 st Fl Front entrance / Lobby – 11:28	0.0	
2 nd Fl Hallway outside contained area (by Library / Media center) – 11:30	0.0	
2 nd Fl Library / Media center – 11:32	0.0	
2 nd Fl Room #202 – 11:34	0.0	Mild odor observed
2 nd Fl Room #203 with Photo lab – 11:36	0.0	Mild odor observed
2 nd Fl Hallway by Rooms ## 202 & 203- 11:38	0.0	
2 nd Fl Hallway by Room #205 – 11:42	0.0	
2 nd Fl Room #201 – 11:56	1.4	Strong odor, SERVPRO currently using fire cleaning products in room
2 nd Fl Hallway by Room #201 – 12:00	0.1	Mild odor of fire observed
Outside by main entrance – 12:40	0.0	Outside fresh air calibration

Note: device was running the entire time, the above select times were recorded for documentation, at no time did the device alarm or indicate levels of concern.

TECHNICIAN: Frederick Larson
EnviroVision Consultants, Inc.

SIGNATURE: Frederick Larson
12/11/2017



20-21 Wagaraw Road – Bldg. 35E, Fair Lawn, NJ 07410
 PH (973) 636-9145 FAX (973) 636-9144
 Email: envirovision@optonline.net

CLIENT: Vernon Township Public Schools
P.O. Box 99 Route 515,
Vernon, NJ 07462

PROJECT: Vernon Twp High School
1832 County Rd 565,
Vernon, NJ 07462

Project number 17-434

DATE of Sampling: 12-10-17

DATE of Analysis: 12-10-17

TYPE of Sampling: PCM (NIOSH 7400 Method)

Lab No.:

Certificate of Analysis

SAMPLE NUMBER	VOLUME (LITERS)	FLOW RATE (LPM)	TIME (MIN)	FIELDS COUNTED	FIBERS FOUND	RESULTS [F/CC]
1210-1	1350	15	90	100	5.0	<0.002
1210-2	1350	15	90	100	3.5	<0.002
1210-3	1350	15	90	100	2.0	<0.002
1210-4	1350	15	90	100	15.5	0.006
1210-5	1350	15	90	100	2.0	<0.002
1210-6	1350	15	90	100	8.0	0.003
1210-7	1350	15	90	100	2.5	<0.002

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*F/CC = Fibers per cubic centimeters of air sampled, which are at least 3 times longer than wide, and not less than 5 microns in length, in accordance with NIOSH 7400 Method.*

*PCM = Phase Contrast Microscopy.*

*LOD- Limit of detection (LOD=0.002 f/cc for 1200 liters)*

*EnviroVision is American Industrial Hygiene Association (AIHA) IHPAT Lab ID # 100154*

ANALYST: Frederick Larson

MICROSCOPE: Olympus CH-2/No.1

SIGNATURE: See air sample data sheet

METHOD: NIOSH 7400 - PCM

LABORATORY DIRECTOR: G.M. MORALES

SIGNATURE: 



20-21 Wagaraw Road - Bldg. 35E, Fair Lawn, NJ 07411  
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 Email: Envirovision@optonline.net

|         |                        |                  |                                       |
|---------|------------------------|------------------|---------------------------------------|
| CLIENT  | Vernon Twp BOE         | ADDRESS          | 625 County Road 517, Vernon, NJ 07462 |
| PROJECT | Vernon Twp High School | ADDRESS          | 1832 County Rd 565, Vernon, NJ 07462  |
| TECH    | Steven Adorned         | SAMPLING DATE    | 12/10/2017                            |
|         |                        | CALIBRATION DATE | 12/10/2017                            |
|         |                        | PROJ #           | 17-434                                |

12/10/2017

### AIR MONITORING DATA SHEET

| Sample No. | Sample Location               | Time on | Time off | Elapse Time | Flow Rate Pre | Flow Rate Post | Volume Liters | Fibers/100 fld | f/cc   |
|------------|-------------------------------|---------|----------|-------------|---------------|----------------|---------------|----------------|--------|
| 1710-1     | 2nd floor Classroom 203       | 1039 AM | 1209     | 90          | 15            | 15             | 1350          | 5.0            | 40.002 |
| 1710-2     | 2nd floor Classroom 202       | 1043 AM | 1213     | 90          | 15            | 15             | 1350          | 8.5            | 40.002 |
| 1710-3     | 2nd floor Hallway near Rm 204 | 1046 AM | 1216     | 90          | 15            | 15             | 1350          | 3.0            | 40.002 |
| 1710-4     | 2nd floor Classroom 201       | 1050 AM | 1220     | 90          | 15            | 15             | 1350          | 15.5           | 0.006  |
| 1710-5     | 1st floor Auditorium          | 1055 AM | 1225     | 90          | 15            | 15             | 1350          | 2.0            | 40.002 |
| 1710-6     | 1st floor Main office         | 1058 AM | 1228     | 90          | 15            | 15             | 1350          | 8.0            | 0.003  |
| 1710-7     | 1st floor Cafeteria           | 1102 AM | 1230     | 90          | 15            | 15             | 1350          | 2.5            | 40.002 |

### CHAIN OF CUSTODY

CASSETTE TYPE  25mm 0.8 micron MCE (PCM)  
 25mm 0.45 micron MCE (TEM)

ANALYSIS  Phase Contrast Microscopy (PCM) via NIOSH 7400 Method

TURNAROUND TIME ASAP

FAX RESULTS TO: (973) 636-9144

Analyst: Steven Adorned Name printed

Analyst Signature: [Signature]

Date: 12/10/17

|                    |                    |                |
|--------------------|--------------------|----------------|
| Relinquished By:   | Received By:       | Date & Time    |
| <u>[Signature]</u> | <u>[Signature]</u> | 12/10/17 12:35 |

LABORATORY SUBMITTED TO: Enviro Vision Fair Lawn, NJ

EMAIL RESULTS TO: (TECH EMAIL)

# New Jersey Department of Health

Having met the requirements of N.J.A.C. 8:50

## Envirovision Consultants, Inc

20-21 Wagaraw Road Bldg 35e, Fair Lawn, NJ 07410-

License Number: 1097

is licensed as an Indoor Environmental Consultant to conduct Indoor Environmental Health Assessments of Child Care Centers and Educational Facilities in New Jersey.

02/08/17

Issue Date

12/06/18

Expiration Date

*Christina Tan*

Christina Tan, MD, MPH, Assistant Commissioner  
Division of Epidemiology, Environmental and Occupational Health  
This license is non-transferable and only valid for the licensee as indicated above.